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Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Date Submitted: February 10, 2005

(use as many sheets as necessary)

Sheet 1 of 4

Complete If Known

Application Number	10/803,491
Filing Date	3/19/2004
First Named Inventor	Flores-Lira et al.
Group Art Unit	1754
Examiner Name	Ardith E. Hertzog
Attorney Docket Number	054821-9007

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	2004/0234852	A1	Klein et al.	11-25-2004	
	A2	2004/0121233	A1	Klein et al.	06-24-2004	
	A3	6,454,977	B1	Kwok et al.	09-24-2002	
	A4	6,442,811	B1	Dawood et al.	09-03-2002	
	A5	6,274,274	B1	Schaeffer et al.	08-14-2001	
	A6	6,168,661	B1	Dinkelman	01-02-2001	
	A7	6,014,798		Nitsche et al.	01-18-2000	
	A8	5,998,062		Olson	12-07-1999	
	A9	5,958,621		Kao	09-28-1999	
	A10	5,871,862		Olson	02-16-1999	
	A11	5,660,600		Vyas	08-26-1997	
	A12	5,447,809		Hafner et al.	09-05-1995	
	A13	5,443,601		Doeff et al.	08-22-1995	
	A14	5,382,482		Suga et al.	01-17-1995	
	A15	5,368,961		Juergens	11-29-1994	
	A16	5,302,476		Kao et al.	04-12-1994	
	A17	5,290,359		Coonen et al.	03-01-1994	
	A18	5,273,554		Vyas	12-28-1993	
	A19	5,252,105		Witherspoon et al.	10-12-1993	
	A20	5,198,313		Juergens	03-30-1993	
	A21	5,120,620		Nelson et al.	06-09-1992	
	A22	5,096,611		Matthew et al.	03-17-1992	
	A23	5,092,404		Falsk et al.	03-03-1992	
	A24	5,091,273		Hug et al.	02-25-1992	
	A25	5,047,300		Juergens	09-10-1991	
	A26	5,045,086		Juergens	09-03-1991	
	A27	5,021,166		Torpey	06-04-1991	
	A28	5,002,700		Otagawa et al.	03-26-1991	
	A29	4,902,532		Seo	02-20-1990	
	A30	4,900,643		Eskra et al.	02-13-1990	
	A31	4,867,886		Botkins, Jr.	09-19-1989	
	A32	4,780,379		Puester	10-25-1988	
	A33	4,758,372		Eirich et al.	07-19-1988	
	A34	4,707,272		Kistler	11-17-1987	
	A35	4,705,602		Dahl	11-10-1987	
	A36	4,697,511		Davis et al.	10-06-1987	
	A37	4,656,706		Mahato et al.	04-14-1987	
	A38	4,648,177		Uba et al.	03-10-1987	
	A39	4,637,966		Uba et al.	01-20-1987	
	A40	4,618,478		McKinney	10-21-1986	
	A41	4,606,982		Nelson et al.	08-19-1986	
	A42	4,551,401		Wilson	11-05-1985	

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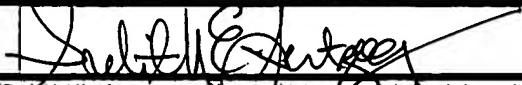
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/803,491
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				First Named Inventor	Flores-Lira et al.
				Group Art Unit	1754
				Examiner Name	Ardith E. Hertzog
Sheet	2	of	4	Attorney Docket Number	054821-9007

U.S. PATENT DOCUMENTS					
		U.S. Patent Document			
	A43	4,547,443	Rowlette et al.	10-15-1985	
	A44	4,501,669	Hakansson et al.	02-26-1985	
	A45	4,475,453	Davis	10-09-1984	
	A46	4,422,917	Hayfield	12-27-1983	
	A47	4,421,832	Uba	12-20-1983	
	A48	4,415,410	Reich	11-15-1983	
	A49	4,414,295	Uba	11-08-1983	
	A50	4,407,911	Hooke	10-04-1983	
	A51	4,388,210	Parker	06-14-1983	
	A52	4,387,142	Lindholm et al.	06-07-1983	
	A53	4,383,011	McClelland et al.	05-10-1983	
	A54	4,346,151	Uba et al.	08-24-1982	
	A55	4,346,022	Wolcott et al.	08-24-1982	
	A56	4,326,017	Will	04-20-1982	
	A57	4,324,768	Sugahara et al.	04-13-1982	
	A58	4,323,470	Mahato et al.	04-06-1982	
	A59	4,315,829	Duddy et al.	02-16-1982	
	A60	4,232,100	Magnusson et al.	11-04-1980	
	A61	4,212,179	Juergens	07-15-1980	
	A62	4,143,218	Adams et al.	03-06-1979	
	A63	4,140,589	Hradcovsky et al.	02-20-1979	
	A64	4,110,519	Nilsson	08-29-1978	
	A65	4,064,725	Hug et al.	12-27-1977	
	A66	4,050,482	Ching et al.	09-27-1977	
	A67	4,024,055	Blann	05-17-1977	
	A68	4,020,882	Foulkes	05-03-1977	
	A69	4,019,431	Bastgen	04-26-1977	
	A70	3,974,026	Emson et al.	08-10-1976	
	A71	3,951,688	Pankow et al.	04-20-1976	
	A72	3,942,433	Wohlfarter	03-09-1976	
	A73	3,899,349	Yarnell	08-12-1975	
	A74	3,894,886	Pankow et al.	07-15-1975	
	A75	3,887,693	Escribano Nevado et al.	06-03-1975	
	A76	3,770,507	Weissman et al.	11-06-1973	
	A77	3,765,943	Biagetti	10-16-1973	
	A78	3,747,560	Roberts et al.	07-24-1973	
	A79	3,734,694	McCoy	05-22-1973	
	A80	3,702,265	Snyder et al.	11-07-1972	
	A81	3,480,478	Sohn et al.	11-25-1969	
	A82	3,449,166	Jache	06-10-1969	
	A83	3,419,431	Michaels	12-31-1968	
	A84	3,398,024	Barnes et al.	08-20-1968	
	A85	3,384,458	McCarthy et al.	05-21-1968	
	A86	3,252,764	Bruno, Jr.	05-24-1966	
	A87	3,194,685	Malloy	07-13-1965	

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				Examiner Name	Ardith E. Hertzog
Sheet	3	of	4	Attorney Docket Number	054821-9007

U.S. PATENT DOCUMENTS					
	A88	3,186,871		Donohue	06-01-1965
	A89	3,169,890		Voss et al.	02-16-1965
	A90	3,104,946		Veal	09-24-1963
	A91	3,001,013		Stanton	09-19-1961
	A92	2,717,903		Ruth	09-13-1955
	A93	2,182,479		Johnstone	12-05-1939
	A94	2,165,944		Scott	07-11-1939
	A95	2,159,226		Reid	05-23-1939
	A96	1,572,586		Weir	02-09-1926

FOREIGN PATENT DOCUMENTS						
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		Office ³	Number ⁴	Kind Code ⁵ (if known)		
	A97	WO	02/069418	A1	Nitsche et al.	09-06-2002
	A98	EP	0707718		Preuss	04-24-1996
	A99	JP	63-269456		Morimoto	11-07-1988
	A100	ES	8801559		Rheinmetall GMBH (DE)	04-01-1988
	A101	EP	196507		Kistler	10-08-1986
	A102	JP	59-101773		Tamaru	06-12-1984
	A103	JP	58-147961		Satou	09-02-1983
	A104	WO	8200258	A1	Koczka et al.	02-04-1982
	A105	GB	1014694		Barnes et al.	12-31-1965
	A106	FR	723018		Thomson	04-01-1932

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.				
	A107	GRUGEON-DEWAELE, S., LARUELLE, S., JOLIVEAU-VALLAT, F., TORCHEUX, DELAHAYE-VIDAL, A., "Synthesis and Electrochemical Performances of Tribasic and Tetrabasic Lead Sulfates Prepared by Reactive Grinding", Journal of Power Sources 72, 1998, pages 126-131.				
	A108	VILHUNEN, J.K., HORNÝTZKYJ, S. and TUMMAVUORI, J. "The Influence of the Raw Material and Production Method on the Morphology, Microstructure, Chemical and Phase Composition of Tetrabasic Lead Sulfate Pastes", Journal of Power Sources, Volume 39, 1992, pages 59-65.				
	A109	PAVLOV, D. and KAPKOV, N., "Lead-Acid Battery Pastes Containing 4PbO - PbSO ₄ and Pb ₃ O ₄ ", J. Electrochemical Society, Volume 137, No. 1, January 1990, pages 16-28.				

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Examiner Signature	<i>Ardith E. Hertzog</i>	Date Considered	4.29.05
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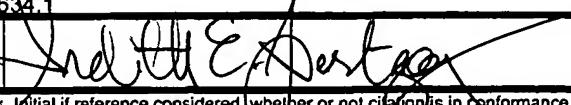
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	A110	YARNELL, C.F. and WEEKS, M.C., "The Oxidation of Tetrabasic Lead Sulfate to Lead Dioxide in the Positive Plate of the Lead-Acid Battery", Journal of the Electrochemical Society, January 1979, Vol. 126, No. 1, pp. 7-11.		T ⁶
	A111	MCCABE, W.L. and SMITH, J.C., "Unit Operations of Chemical Engineering," third edition, McGraw-Hill Book Company, 1976, 5 pages.		
	A112	PAVLOV, D. and PAPAZOV, G., "Dependence of the Properties of the Lead-Acid Battery Positive Plate Paste on the Processes Occurring During Its Production" Journal of Applied Electrochemistry, Volume 6, No. 4, July 1976, pages 339-345.		
	A113	BIAGETTI, R.V. and WEEKS, M.C., "Tetrabasic Lead Sulfate as a Paste Material for Positive Plates", Bell System Technical Journal, September 1970, Vol. 49, No. 7, pp. 1305-1319.		
	A114	BURBANK, J., "Anodic Oxidation of the Basic Sulfates of Lead" Journal of the Electrochemical Society, Volume 113, No. 1, January 1966, pages 10-14.		

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